Message

From: Partridge, Charles [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=27DA56DA9A12472787EF56077099CF36-PARTRIDGE, CHARLES]
Sent: 12/16/2019 7:10:56 PM
To: Woodbury, Lynn [woodburyl@cdmsmith.com]
Subject: RE: More meconium info...

Nope. No access

cp

From: Woodbury, Lynn <woodburyl@cdmsmith.com>
Sent: Monday, December 16, 2019 12:08 PM
To: Partridge, Charles <Partridge.Charles@epa.gov>
Subject: RE: More meconium info...

OK, I'll put in a request through our InfoCenter (although I think we were able to glean the necessary information from the first page).

Do you have access to this one? https://www.ncbi.nlm.nih.gov/pubmed/16319451
This is the Turker et al 2006 paper that has a big copyright seal on the front saying "thou shalt not distribute".

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Lynn Woodbury | CDM Smith | 555 17th Street, Suite 500 | Denver, CO 80202 | direct: 303.383.2382 | fax: 303.308.3003 | woodburyL@cdmsmith.com

From: Partridge, Charles <Partridge.Charles@epa.gov>
Sent: Monday, December 16, 2019 11:56 AM
To: Woodbury, Lynn <woodburyl@cdmsmith.com>
Subject: RE: More meconium info...

Nope, we don't have access

cp

From: Woodbury, Lynn <woodburyl@cdmsmith.com>
Sent: Monday, December 16, 2019 11:27 AM
To: Partridge, Charles <Partridge.Charles@epa.gov>
Subject: RE: More meconium info...

https://www.ncbi.nlm.nih.gov/pubmed/342053

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Lynn Woodbury | CDM Smith | 555 17th Street, Suite 500 | Denver, CO 80202 | direct: 303.383.2382 | fax: 303.308.3003 | woodburyL@cdmsmith.com

From: Partridge, Charles <Partridge.Charles@epa.gov>
Sent: Monday, December 16, 2019 8:59 AM
To: Woodbury, Lynn <woodburyl@cdmsmith.com>
Subject: RE: More meconium info...

Lynn,

Send me the pubmed links to those papers and I will check if I have full text access

cp

From: Woodbury, Lynn <woodburyl@cdmsmith.com>
Sent: Monday, December 16, 2019 8:38 AM
To: Wall, Dan <wall.dan@epa.gov>
Cc: Partridge, Charles <Partridge.Charles@epa.gov>; OBrien, Wendy <OBrien.Wendy@epa.gov>; David Shanight <shanightdt@cdmsmith.com>; Greene, Nikia <Greene.Nikia@epa.gov>
Subject: RE: More meconium info...

Yes, I haven't forgotten...

There are two sources I've identified thus far - Friel 1989 and Harries 1978 (see attached). Both are a bit older, but I wouldn't think that would matter (not many scientific advances in moisture content determination).

- Per Harries (1978), meconium moisture content is about 70-75%. [I was only able to access the first page of this citation over the weekend, but I can request the full paper this week]
- Per Friel (1989), average moisture content was reported as 68% for both study groups.

So, as you already noted below, if McDermott's concentrations were actually wet weight (their paper doesn't specify), the dry weight concentrations would be about 3-4 times higher than was is reported in their paper. Thus, the difference in wet/dry weight basis would still not bring the Columbia, SC study group results into alignment with the other studies.

I plan to go back into the various studies we have identified to see how their sample preparation methods compare to what was done by McDermott. I'll let you know if I find out anything of significance...
Lynn

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Lynn Woodbury | CDM Smith | 555 17th Street, Suite 500 | Denver, CO 80202 | direct: 303.383.2382 | fax: 303.308.3003 | woodburyL@cdmsmith.com

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From: Wall, Dan <wall.dan@epa.gov>
Sent: Saturday, December 14, 2019 7:37 AM
To: Woodbury, Lynn <woodburyl@cdmsmith.com>
Cc: Partridge, Charles <Partridge.Charles@epa.gov>; OBrien, Wendy <OBrien.Wendy@epa.gov>; Shanight, David <ShanightDT@cdmsmith.com>; Greene, Nikia <Greene.Nikia@epa.gov>
Subject: Re: More meconium info...

Thanks Lynn. What about the ww to dw conversion? I done want that to get lost. From what I've seen, moisture content is ~70-75% so 3-4x. Doesn't change conclusions but should be noted.

Sent from my iPhone

> On Dec 13, 2019, at 3:35 PM, Woodbury, Lynn <woodburyl@cdmsmith.com> wrote:
>
> ***Draft, Confidential***
>
> All –

As promised, here are three additional meconium papers for review. I've added these to the summary table (also attached). I also added 2019 Cassoulet and 1966 Popita (which were disseminated in earlier emails) to the table. New sources are displayed in green in the table. A few notes:

- The lead levels in the Turker et al. 2006 study are quite a bit different from all the others. However, this may reflect authentic contamination. I didn't attach a copy of this study because of copyright issues...I'm following up with our InfoCenter to confirm it is appropriate for me to share the article with my client. But, here is a brief excerpt regarding the study population:

Seventy-five of 500 important industrial establishments in Turkey are located in Kocaeli. The most important of these are petroleum refinery and fuel additives, PVC plastics, crystal glass production, dye, chemistry, drug, detergent, rubber, and automobile industry of Turkey. Leadfree oil is seldom used by people in Turkey. The aim of this study was to measure concentrations of toxic metals (Pb and Cd) and trace elements [zinc (Zn), copper (Cu), and iron (Fe)] in the meconium of newborns from the industrial city of Kocaeli. The parents of all infants had lived within a 20-km radius of a petroleum refinery or dye industry for at least 5 years.

- For the Yang and Ostrea citations, I haven't presented the actual values (yet) as both studies present results in units that will require conversion to display as ug/g. I believe both are expressing concentrations in terms of mass of metal in the extraction fluid (and not per mass of meconium). You can review the footnote for each study for details. Once I'm able to spend a bit more time with these two studies, I'll evaluate if they can provide useful data.

I'll continue chipping away at the lit search task and transmitting new information as it becomes available.

Have a great weekend,
Lynn

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Lynn Woodbury | CDM Smith | 555 17th Street, Suite 500 | Denver, CO 80202 | direct: 303.383.2382 | fax: 303.308.3003 | woodburyL@cdmsmith.com

<2002_Ostrea_meconium.pdf>
<2013_Yang_Japan As-Cd-Pb.pdf>
<2014_Hamzaoglu_colostrum-meconium.pdf>
<Summary table_12-13-19.xlsx>